

SECTION IV: BEST MANAGEMENT PRACTICES FOR COVERED ASBESTOS DISPOSAL SITES

The information provided in this section describes recommended practices and procedures for properly managing properties where asbestos waste has been buried. These recommendations are referred to as "best management practices" or "BMPs".

The BMPs contained in this guide largely rely on practical techniques for keeping asbestos manufacturing waste isolated and preventing the release of fibers to the environment. These techniques, while not "fool proof", are intended to provide sensible and workable measures for safely using and maintaining property where asbestos waste exists and is covered. Further, the BMPs are designed to comply with regulatory requirements, including federal standards for managing inactive asbestos disposal sites, as specified in 40 CFR 61.151. For a copy of this federal regulation, see Section V.

The BMPs presented in this guide are indexed by topic, as follows:

BMP 1.0	ACTIVITY AND PROPERTY USE RESTRICTIONS
BMP 2.0	SITE MONITORING
BMP 3.0	SITE MAINTENANCE
BMP 4.0	IMMINENT HAZARD RESPONSE
BMP 5.0	UNPLANNED ENCOUNTERS
BMP 6.0	DISCLOSURE AND RIGHT-TO-KNOW
BMP 7.0	RECORD KEEPING

From time to time, the following BMPs may be revised to include new information. If you own an asbestos disposal site, you should keep a copy of the BMPs with your property records, for reference and periodic updating. Updated BMPs may be obtained by mail from NHDES (see Section V for address information) or from the NHDES website at www.des.state.nh.us.

BMP 1.0: Activity & Property Use Restrictions

Land development and land use activities at asbestos disposal sites must be protective of cover materials, in order not to disturb the underlying asbestos waste and create an opportunity for human exposure. Federal regulation (40 CFR 61.151) prohibits the disturbance of any asbestos-containing waste material at the disposal site, unless prior notice is supplied to the United States Environmental Protection Agency (US-EPA) and the work procedures are tightly controlled to prevent asbestos emissions. Therefore, to help assure these requirements are met and to limit the potential for human exposure, the following activity and property use restrictions should be strictly observed at every asbestos disposal site:

- ✓ (1.1) Do not dig into or through cover materials. If digging becomes necessary due to an emergency or other unavoidable circumstance, first contact your local health officer and NHDES (see Section V for contact information) to obtain information necessary to comply with applicable regulations and to protect human health. Under no circumstance should you dig into asbestos waste without first obtaining this additional information.
- ✓ (1.2) Do not undertake land development and/or improvement plans which require underground systems to be constructed within the asbestos disposal area, including septic systems, utility lines, closed drainage systems, footings, foundations, wells, and in-ground swimming pools. Similarly, avoid placing utility poles, fence posts, sign posts and the like within the disposal area.
- ✓ (1.3) Do not plant trees and large shrubs within the disposal area. Understand that the root systems of trees and large shrubs within a disposal area have the potential to cause the asbestos to become exposed, either due to shifting the soil cover or being uprooted during a storm. In addition, if a deep rooted tree already exists within the disposal area and the tree must be removed, leave the stump in place.
- ✓ (1.4) Do not conduct vegetable or flower gardening within the disposal area, unless the garden is constructed as a raised bed garden which can be cultivated without disturbing underlying cover materials and waste.
- ✓ (1.5) Do not place your child's sand box within the disposal area, unless it has a solid bottom and you are certain your child will not dig through cover materials into the underlying asbestos waste.
- ✓ (1.6) If you have a dog that digs, do not tie it out in the area of asbestos fill.
- ✓ (1.7) Do not use the disposal area for any activity for which the cover materials are not designed. For example, do not drive motor vehicles, heavy equipment, ATVs or the like over or through the disposal area, unless the cover materials have been specifically designed to withstand the loading and wearing action, especially under muddy conditions.
- ✓ (1.8) Do not alter site terrain in such a manner as to cause drainage patterns to change and erode cover materials.
- ✓ (1.9) Always seek the advice and assistance of your local health officer, NHDES and other qualified professionals whenever there is any question about activity and property use restrictions, and/or the ability to carry out any activity without causing a release of asbestos fibers.

BMP 2.0: Site Monitoring

Asbestos disposal sites require frequent monitoring to assure that the cover materials remain in good condition and continue to isolate the asbestos. Site monitoring should be accomplished as follows:

- ✓ (2.1) Regularly (*) inspect the surface of the ground in and around the disposal area to assess the condition of the cover materials and look for exposed asbestos. In addition, repeat the inspection process after each significant weather event, including high intensity rainfalls, floods and wind storms. Signs of cover deterioration or damage include but are not limited to: erosion, settlement, cracking, stressed or dying vegetation, burrowing activity by rodents (moles, woodchucks, ground squirrels, etc.), and vandalism. Signs of exposed asbestos include any of the materials pictured in Section II of this guide. When looking for exposed asbestos, pay close attention to areas where the cover materials have deteriorated or been disturbed, as described above. Also, pay close attention to the area around the base of tree trunks. Growing root systems have the potential to cause asbestos to resurface.

(*) Note: the recommended frequency of the regular inspections largely depends on individual site characteristics, including the depth/type of cover materials and type of land use. For example, at a site where there is less than optimum cover materials (i.e., a site which has not been fully remediated, as discussed in Section III) there may be a need to inspect site conditions more frequently than at a site which has been fully remediated. In any event, regular inspections should occur no less than twice a year: once in the spring after snowmelt but before leafy growth begins, and once in the fall after the ground vegetation has begun to die off, but before trees have begun to drop their leaves.

- ✓ (2.2) If any of the cover deterioration or disturbance problems noted in BMP 2.1 above are observed, implement cover repairs and address other cover maintenance needs as specified in BMP 3.0 (Site Maintenance).
- ✓ (2.3) If asbestos waste is found on, or protruding through, the surface of the ground, immediately notify your local health officer and NHDES. See Section V for contact information. Remember: exposed friable asbestos constitutes an imminent health hazard. Therefore, proceed only in accordance with BMP 4.0 (Imminent Hazard Response).
- ✓ (2.4) Cooperate with NHDES and your local health officer when either party wishes to inspect the site. Periodic inspections by trained personnel are an important part of protecting public and personal health.
- ✓ (2.5) Keep records of all inspections, for future reference. See also BMP 7.1.
- ✓ (2.6) Always seek the advice and assistance of your local health officer, NHDES and other qualified professionals whenever there is any question about site monitoring needs, and/or the ability to carry out any activity without causing a release of asbestos fibers.

BMP 3.0: Site Maintenance

Cover materials at asbestos disposal sites must be maintained to keep them in good condition. The following maintenance measures apply:

- ✓ (3.1) Make timely repairs to cover materials which are showing evidence of deterioration or damage, including but not limited to: erosion, settlement, cracking, stressed or dying vegetation, burrowing activity by rodents (moles, woodchucks, ground squirrels, etc.), and vandalism. However, if the repair of cover materials has the potential to disturb asbestos-containing waste materials or to otherwise cause an asbestos fiber emission, do not undertake the work without first consulting with your local health officer and NHDES to be certain the work is protective of human health and complies with regulatory requirements.
- ✓ (3.2) Water and fertilize cover vegetation to promote and sustain healthy growth. Reseed areas where needed. Use environmentally friendly fertilizers whenever possible.
- ✓ (3.3) Cut dead or dying trees within the disposal area before they are uprooted by storms. Leave the stump in place, so as to not disturb the underlying asbestos-containing waste materials.
- ✓ (3.4) Seal and patch asphalt and concrete surfaces which overlay asbestos waste, to prevent and repair cracks.
- ✓ (3.5) If frequent repairs are necessary at the same location for the same reason, identify the cause and look for a more permanent solution, including redesigning the capping system, upgrading the cover materials, or implementing an alternative land use.
- ✓ (3.6) Be certain the repairs do not violate local, state or federal requirements, including but not limited to: flood control, wetland and shoreland protection regulations. Always obtain all local, state and federal permits or approvals that are required to complete the work.
- ✓ (3.7) Always seek the advice and assistance of your local health officer, NHDES and other qualified professionals whenever there is any question about site maintenance needs, and/or the ability to carry out any activity without causing a release of asbestos fibers.

BMP 4.0: Imminent Hazard Response

Exposed friable asbestos constitutes an imminent health hazard. Therefore, if asbestos-containing waste material is discovered on or protruding from the ground surface (see Section II for representative pictures), immediate steps must be taken to eliminate the risk, as follows:

- ✓ (4.1) Upon discovery, report the condition to your local health officer and NHDES. See Section V for contact information.
- ✓ (4.2) For as long as the asbestos remains exposed, control access to the site to prevent entry by unauthorized and/or unprotected persons. Note: federal regulation (40 CFR 61.151) specifies that an asbestos disposal site which remains uncovered must be fenced and posted with warning signs, unless a natural barrier adequately deters access.
- ✓ (4.3) Assure that there are no visible emissions from the uncovered site, as required by 40 CFR 61.151. An effective means for doing so is to keep the exposed material moist, by using a fine spray or mist.
- ✓ (4.4) Take care not to walk through, drive through, touch, or otherwise make direct contact with the asbestos-containing material. Keep pets and children away from the area. Be aware that making direct contact with the asbestos may result in contaminating clothes and skin, which in turn may result in asbestos fibers becoming airborne or ingested.
- ✓ (4.5) Based on instructions provided by your local health officer and NHDES, engage the services of a qualified professional to develop a plan for covering or removing the asbestos-containing material. Referral lists are available from NHDES. See Section V for information about contacting NHDES and the local health officer.
- ✓ (4.6) Implement the plan, after consulting with NHDES and the local health officer to assure that the work is protective of human health and complies with regulatory requirements. Note: this type of work must be carried out by a professional who is properly equipped and trained. Lacking proper equipment and training, a person engaging in this type of work is at risk of personal exposure, causing other human exposures, and violating local, state, and/or federal regulation.
- ✓ (4.7) Always seek the advice and assistance of your local health officer, NHDES and other qualified professionals whenever there is any question about imminent hazard response actions, and/or the ability to carry out any activity without causing a release of asbestos fibers.

BMP 5.0: Unplanned Encounters

New asbestos disposal sites are periodically discovered. Therefore, there is always the potential to encounter asbestos-containing waste materials unexpectedly, for example during excavation activities, after severe storms, or while enjoying a walk in the woods. When this happens, the following applies:

- ✓ (5.1) If the discovery is made during excavation activities, immediately cease work and implement BMP 4.0 (Imminent Hazard Response). Resume work only in accordance with a work plan that is protective of public and worker health, and which meets regulatory requirements, including 40 CFR 61.151 and standards set forth by the U.S. Occupational Safety and Health Administration. Consult with your local health officer and NHDES regarding the adequacy of the plan.

Note: this type of work must be carried out by a professional who is properly equipped and trained. Lacking proper equipment and training, a person engaging in this type of work is at risk of exposure and/or causing an exposure, and may be in violation of local, state, or federal regulation.

- ✓ (5.2) If the discovery is made during casual activity, for example while walking through the woods, take care not to walk through, drive through, touch, or otherwise make direct contact with the asbestos-containing materials; immediately remove yourself from the area; and immediately report the condition to your local health officer and NHDES so a response can be coordinated in accordance with BMPs 4.2 - 4.6.
- ✓ (5.3) Keep pets and children away from the area. Be aware that making direct contact with the asbestos may result in contaminating clothes and skin, which in turn may result in asbestos fibers becoming airborne or ingested.
- ✓ (5.4) Always seek the advice and assistance of your local health officer, NHDES and other qualified professionals whenever there is any question about dealing with an unplanned encounter, and/or the ability to carry out any activity without causing a release of asbestos fibers.



BMP 6.0: Disclosure & Right-to-Know

Knowledge that asbestos waste exists at a specific location is the best means for protecting against human exposure. By complying with the following disclosure and right-to-know practices, the property owner will protect others from being exposed to asbestos.

- ✓ (6.1) When preparing to sell the property, inform the real estate agent and prospective buyer(s) that asbestos-containing waste material exists on the property. Provide relevant information concerning the location of the waste, the depth and type of cover, regulatory requirements, activity and property use restrictions, and other best management practices.
- ✓ (6.2) When renting the property, inform the tenant(s) that asbestos-containing waste material exists on the property. Provide relevant information concerning the location of the waste, the depth and type of cover materials, regulatory requirements, activity and property use restrictions, and other best management practices. In the lease, stipulate the need to comply with the activity and property use restrictions (see BMP 1.0).
- ✓ (6.3) Prior to contracting for work which will involve excavation or other potential disturbances within or near the disposal area, inform the contractor and provide a copy of the work plan developed in consultation with NHDES to address public health and regulatory concerns. (See BMP 1.0).
- ✓ (6.4) Record notice in the chain of title for the property, as specified by 40 CFR 61.151(e). See Section V for a sample notice.
- ✓ (6.5) Notify NHDES when for the property is transferred to a new owner, so that NHDES can properly direct future correspondence concerning the property.
- ✓ (6.6) Always seek the advice and assistance of your local health officer, NHDES, real estate agent, lawyer and other qualified professionals whenever there is any question about disclosure and right-to-know issues, and/or the ability to carry out any activity without causing a release of asbestos fibers.



BMP 7.0: Record Keeping

It is important to keep good records, which will allow you to document and reconstruct activities that have taken place at asbestos disposal sites under your ownership or control. The following recommendations apply:

- ✓ (7.1) Maintain a written record of all site inspections that you make pursuant to BMP 2.0.
- ✓ (7.2) Maintain a written record of all repairs and maintenance activities, including the date the work was performed, a description of the work performed and related photographs or diagrams, the identity of all persons performing the work, and other such information as may be needed to fully document the activities.
- ✓ (7.3) Maintain copies of all official correspondence concerning the site, including correspondence with the local health officer, and state or federal officials. (*)

(*) Note: NHDES maintains files for asbestos disposal sites. The files include information compiled by NHDES during periodic site inspections. This information typically is sent to the property owner following a site visit. In addition, the files are available for public inspection, by making an appointment with NHDES. See Section V for contact information.

- ✓ (7.4) Maintain a scaled map of the site, showing the location of the asbestos disposal area and other information that will allow a third party, such as a contractor, to avoid disturbing the area when working at the site.
- ✓ (7.5) Always seek the advice and assistance of your local health officer, NHDES and other qualified professionals whenever there is a question about recordkeeping matters, and/or the ability to carry out any activity without causing a release of asbestos fibers.

